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09/445,033	01/18/2000	MARK SIEVERT LARSEN	CU-2048TJK	9384
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JOHN J CHRYSTAL			EXAMINER	
	ICHIGAN AVENUE		PARTON, KEVIN S	
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			2153	,
			DATE MAILED: 06/16/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

•		Application No.	Applicant(s)			
Office Action Summary		09/445,033	LARSEN ET AL.			
		Examiner	Art Unit			
		Kevin Parton	2153			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status						
1)	Responsive to communication(s) filed on	·				
2a)⊠	This action is FINAL . 2b) Th	nis action is non-final.				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims						
4)🖂	Claim(s) $1-30$ is/are pending in the application	١.				
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-8 and 13-30</u> is/are rejected.						
7)⊠ Claim(s) <u>9-12</u> is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on <u>18 January 2000</u> is/are: a) \boxtimes accepted or b) \square objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12) The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a)[a) All b) Some * c) None of:					
	1. Certified copies of the priority documents have been received.					
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
14)□ A	cknowledgment is made of a claim for domesti	c priority under 35 U.S.C. § 119	9(e) (to a provisional application).			
a) The translation of the foreign language provisional application has been received. 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment						
2) Notice 3) Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informa	ary (PTO-413) Paper No(s) al Patent Application (PTO-152)			
U.S. Patent and Tr PTO-326 (Re		ction Summary	Part of Paper No. 12			

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DETAILED ACTION

Response to Arguments

- 1. The objections to the drawings are withdrawn.
- 2. The objections to claims 8-12, and 17-29 have been withdrawn due to the amendment.
- 3. Applicant's arguments regarding the Sugihara (USPN 4,930,118) reference have been considered but are moot in view of the new grounds of rejection below.
- 4. Applicant's further arguments filed 03/31/2003 have been fully considered but they are not persuasive. Please see the following reasons along with the grounds of rejection below.
- 5. Applicant's arguments regarding the Sweazey (USPN 5,485,578) reference are not persuasive because the claimed invention does not specify that the channels are separated physically. The Sweazey (USPN 5,485,578) reference teaches the selection of channels temporally and allow for data packets and probe packets to be selectively sent depending on priority decisions (column 7, lines 40-42; column 2, lines 61-64).

Further, nothing in the claimed invention precludes the use of addresses in the probe signals. Sweazey (USPN 5,485,578) discloses the use of probe signals sent to sequentially increasing addresses, so the actual existence of the addresses is unknown. The current invention, as claimed, does not preclude this implementation. Also, the very purpose of Sweazey (USPN 5,485,578) is to separate "intermediate stations" from destinations. The bridges of the networks are the primary concern and they are by definition intermediate stations. The destination stations are also realized as leaf nodes.

6. All further arguments are moot in view of the new grounds of rejection based on the amended claims cited below.

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Claim Rejections - 35 USC § 102

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7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 8. Claims 1-4, 13, 17, 22, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Sweazey (USPN 5,485,578).
- 9. Regarding claims 1 and 30, Sweazey (USPN 5,485,578) teaches a communication network comprising a plurality of stations each able to transmit and receive data so that the network can transmit data from an originating station to a destination station via at least one intermediate station, the method comprising:
 - a. Defining at least one calling channel distinct from at least one data channel (column 7, lines 41-43; column 2, lines 52-56; column 2, lines 61-64). Note that channels are temporally distinct.
 - b. Selecting, at intervals, at each station and according to first predetermined criteria, a calling channel for the transmission of probe signals to other stations (column 7, lines 41-43; column 2, lines 52-56; column 2, lines 61-64).
 - c. Transmitting probe signals from each station at intervals on the selected calling channel, other stations which receive the probe signals from a given station responding directly, or indirectly via at least one intermediate station, to thereby indicate to the given station their availability as destination or intermediate stations (column 4, lines 21-25; column 6, lines 35-38; column

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15, lines 10-13; column 16, lines 23-35). Note that any station can be the originator or target of a probe. Each station transmits the probe. Bridges are intermediate nodes and alter a probe accordingly; they allow nodes to respond indirectly.

- d. Evaluating, at the given station, the direct or indirect responses of other stations to the probe signals according to second predetermined criteria, in order to identify other stations with which the given station can communicate optimally (column 15, lines 30-36)
- 10. Regarding claim 2, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 1. He further teaches means wherein the other stations receiving the probe signals from the given station each modify their own probe signals to include data indicating the quality of the communication between the given station and themselves, the given station being responsive to the data to vary at least one parameter of its transmissions so that it can communicate optimally with a desired number of other stations in the network without causing undue contention or interference between stations (column 16, lines 23-35). Note that in the reference, the returned signal is altered if the target node is unavailable.
- 11. Regarding claim 3, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 1. He further teaches means wherein the probe signals from the given station include data identifying other stations which the given station has detected as being available as destination or intermediate stations (column 15, lines 30-36). This is one objective of the reference. As a node builds a topology of the network, the probe signals are altered using that information of what are destination (leaf) nodes and intermediate (bridge) nodes.

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12. Regarding claim 4, wherein the probe signals further include data indicating the quality of the communication between the given station and each other identified station (column 15, lines 30-36, 54-57).

- 13. Regarding claim 13, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 1. He further teaches means wherein stations receiving probe signals from the given station respond by transmitting reply signals to the given station, the given station comparing the number of reply signals received from different stations with a predetermined value, and varying at least one parameter of its transmission if the number of reply signals does not correspond to the second value until the number of reply signals received by the given station corresponds to the predetermined value (column 15, lines 30-36; column 16, lines 23-35). Note that in the reference, the source node should receive at least one reply per destination node. A non-responsive node would indicate the node does not exist and the address would signal the end of that ring.
- Regarding claim 17, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 13. He further teaches means wherein the predetermined value, which is compared with the number of reply signals, is calculated to correspond to a desired number of neighbor stations available to a given station as intermediate or destination stations, to permit the given station to communicate optimally with a desired number of other stations in the network without causing undue contention or interference between stations (column 15, lines 30-36, 54-57). Note that in the reference, the replies of the bridge nodes allow the source node to communicate with the other leaf nodes on the network. The threshold would be one reply per sent signal.

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Regarding claim 22, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 1. He further teaches means wherein probe signals are transmitted regularly by stations to establish contact with other stations, other stations receiving the probe signals responding to a random number of the probe signals, the random number being equal to or less than the number of probe signals transmitted (column 15, lines 30-36; column 16, lines 23-35). Note that in the reference, each probe signal is replied to.

16. Regarding claim 25, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 1. He further teaches means wherein stations are designated as important and these stations transmit probe signals including data identifying them, other stations receiving these probe signals in turn modifying their own probe signals to include data identifying the important stations, so that even stations remote from the important stations obtain the data (column 15, lines 30-36; column 16, lines 23-35). Note that bridge nodes are marked as "important" and the new probe signals include known bridges.

Claim Rejections - 35 USC § 103

- 17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 18. Claims 14-16, 23, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweazey (USPN 5,485,578).
- 19. Regarding claim 14, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 13) shows substantial features of the claimed invention, it fails to disclose

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means for defining a plurality of calling channels, each calling channel having a higher data rate than a previous calling channel and selecting a different calling channel having a different data rate from the previous calling channel according to the second predetermined criteria if the number of reply signals does not correspond to the predetermined value.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by subsequently choosing better routes to a destination when replies are not received. This benefits the system by allowing for the determination of topology even when certain bridge nodes are unavailable.

20. Regarding claim 15, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 14) shows substantial features of the claimed invention, it fails to disclose means wherein the first predetermined criteria include the calling channel data rate/or the calling channel transmission power, the calling channel being selected according to the highest available channel data rate and/or the lowest available channel transmission power.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by choosing either the fastest or most efficient data route. This benefits the system by allowing for the determination of topology with the minimal use of time and/or power.

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21. Regarding claim 16, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 14) shows substantial features of the claimed invention, it fails to disclose means wherein the second predetermined criteria include the calling channel data rate/or the calling channel transmission power, the different calling channel being selected according to the lowest available channel data rate and/or the highest available channel transmission power.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by choosing either the slowest or least power efficient data route. This benefits the system because the probe signals may be very small and require little resource compared to system data, they would thus take up the least advantageous links. Additionally, this could be used to subsequently choose channels of slightly lower quality until an available channel is found.

22. Regarding claim 23, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 22) shows substantial features of the claimed invention, it fails to disclose means for controlling, at each station, the interval between the transmission of probe signals by a probe timer, the probe timer defining an interval between successive probe signals which is longer than the duration of a probe signal and transmitting response signals between the successive probe signals.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing the use of a probe timer. Ring networks commonly use timing to reduce conflict in data communication. The probe timer would benefit the system by ensuring that response data would be received before subsequent probes are sent. The Sweazey (USPN 5,485,578) reference essentially does this by waiting for a response before resending requests.

23. Regarding claim 24, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 23) shows substantial features of the claimed invention, it fails to disclose means for varying the interval between the transmission of successive probe signals at each station according to whether or not the station has data to transmit, the probe timer defining a first, relatively short interval between successive probe signals when the station has data to send, and a second, relatively long interval between successive probe signals when the station has no data to send.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by varying the probe interval depending on the needs of the source station. This benefits the system by giving the source station the most accurate picture of the network at times when data needs to be sent. At other, more dormant times, the station has a less current picture but is using less network and computing time probing the network.

Regarding claim 26, Sweazey (USPN 5,485,578) teaches all the limitations as applied to 24. claim 25. He further teaches means wherein the designated important stations include gateway stations and, from time to time, originating or destination stations (column 15, lines 30-36). Note that bridges are gateway nodes and they may be the destination as well.

Although the system disclosed by Sweazey (USPN 5,485,578) shows substantial features of the claimed invention, it fails to disclose means wherein the designated important station is a certificate authority.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by designating a certificate authority as "important". A certificate authority is a node that must be used by every node on a network and its location should be known. This benefits the system by ensuring that each node would note the location of this particular leaf node.

- 25. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweazey (USPN 5,485,578) in view of Doherty et al. (USPN 6,101,170).
- 26. Regarding claim 5, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 4) shows substantial features of the claimed invention, it fails to disclose means wherein the probe signals are broadcast probe signals addressed to all or a plurality of the other stations.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578), as evidenced by Doherty et al. (USPN 6,101,170).

In an analogous art, Doherty et al. (USPN 6,101,170) discloses a system for topology and network address discovery wherein probe signals are broadcast probe signals addressed to all or a plurality of the other stations (column 11, lines 30-36).

Given the teaching of Doherty et al. (USPN 6,101,170), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing the use of broadcast probe signals. In a ring network like Sweazey (USPN 5,485,578), this would be equivalent to sending a packet that instructed each node to respond and forward appropriately. This would benefit the system by allowing for total topology discovery in one action. Note that the Sweazey (USPN 5,485,578) reference sends probe signals to all known or potential nodes, which is similar to a broadcast probe.

- 27. Regarding claim 6, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 5. He further teaches means wherein the probe signals additionally include addressed probe signals, addressed to at least one other station with which the station transmitting the addressed probe signals wishes to communicate (column 15, lines 30-36).
- 28. Regarding claim 7, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 6) shows substantial features of the claimed invention, it fails to disclose means wherein the addressed probe signals are transmitted more frequently than the broadcast probe signals.

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Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing the more frequent use of addressed probes to broadcast probes. Broadcast probes permit the node to inspect the entire network at once and give a full picture. Addressed probes are more frequently needed because the node only needs to verify that a needed node is accessible. This benefits the system because the broadcast probes are more labor intensive on the network as a whole and take more time to provide the needed response.

- 29. Regarding claim 8, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 6. He further teaches means wherein the addressed probe signals include age information corresponding to the age of the data indicating the quality of the communication between the given station and each other identified station, for use by the station receiving the addressed probe signals in selecting other stations with which to communicate (figure 4). Note that probe signals specify the number of hops required and thus the relative "age" of packets from that source.
- 30. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweazey (USPN 5,485,578) in view of Cain et al. (USPN 4,905,233).
- 31. Regarding claim 18, Sweazey (USPN 5,485,578) teaches all the limitations as applied to claim 1. He further teaches means for defining data channels, each station transmitting data to neighbor stations on selected data channels after determining the availability of the neighbor

stations (column 15, lines 30-36). Note that after determining topology, the source node can "establish communication" with the determined destinations.

Although the system disclosed by Sweazey (USPN 5,485,578) shows substantial features of the claimed invention, it fails to disclose means for establishing multiple data channels with varying data rates.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578), as evidenced by Cain et al. (USPN 4,905,233).

In an analogous art, Cain et al. (USPN 4,905,233) discloses a system for optimal data routing where multiple paths are selectable and have varying data rates (column 6, lines 58-63).

Given the teaching of Cain et al. (USPN 4,905,233), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing the use of multiple channels to a common destination with varying data rates. This benefits the system by allowing it to assign a level of priority to communications and accordingly choose the best path.

32. Regarding claim 19, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 18) shows substantial features of the claimed invention, it fails to disclose means wherein the data channels correspond to respective calling channels, a data channel being selected for transmission of data which corresponds to the selected calling channel.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

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A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by corresponding data channels to the calling channels. This benefits the system by allowing for the selection of routes based on the topology determination and performance tests performed on the calling channels.

33. Regarding claim 20, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 18) shows substantial features of the claimed invention, it fails to disclose means wherein a plurality of data channels correspond to a single calling channel, the data channels being monitored for activity by the stations and a station wishing to transmit data selecting a data channel which has been detected as free of activity, thereby to optimize data channel usage between stations.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing logic to cause a station with multiple outward channels to the same destination to choose the channel with no data activity. This benefits the system by causing maximum resource usage with minimal crowding on available lines.

Regarding claim 21, although the system disclosed by Sweazey (USPN 5,485,578) (as 34. applied to claim 20) shows substantial features of the claimed invention, it fails to disclose means wherein probe signals transmitted by each station on the calling channels include information indicative of the intention of a given station transmitting the probe signals to move

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to a selected data channel which is then flagged as being active, to permit other stations to communicate successfully with the given station on the selected data channel.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578).

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing the use of logic to note that a given data channel is in use by a particular machine. This benefits the system by allowing each station to have a record of available channels and the channels on which another station is communicating.

- 35. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweazey (USPN 5,485,578) in view of Collins, III, et al. (USPN 5,845,090).
- 36. Regarding claim 27, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 1) shows substantial features of the claimed invention, it fails to disclose means for distributing updated software for the operation of the stations by uploading the updated software to a selected station, and distributing portions of the updated software to other station until each other station has the complete updated software.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578), as evidenced by Collins, III, et al. (USPN 5,845,090).

In an analogous art, Collins, III, et al. (USPN 5,845,090) discloses a system for the distribution of updated software for the operation of the stations by uploading the updated

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software to a selected station, and distributing portions of the updated software to other station until each other station has the complete updated software (column 2, lines 24-26, 34-36).

Given the teaching of Collins, III, et al. (USPN 5,845,090), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing the update of software across the network. This benefits the system because after the network topology has been identified, it is determined where and how many software update packages are needed for the full network.

37. Regarding claim 28, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 27) shows substantial features of the claimed invention, it fails to disclose means wherein the software is distributed in update blocks including version data and block number data to permit stations to assemble the update software from a plurality of received update blocks.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578), as evidenced by Collins, III, et al. (USPN 5,845,090).

In an analogous art, Collins, III, et al. (USPN 5,845,090) discloses a system for the distribution of updated software wherein the software is distributed in update blocks including version data and block number data to permit stations to assemble the update software from a plurality of received update blocks (column 2, lines 24-42).

Given the teaching of Collins, III, et al. (USPN 5,845,090), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing the use of multiple types of packages for the update of

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software. This benefits the system by allowing for each node to correctly install the software at the local station.

38. Regarding claim 29, although the system disclosed by Sweazey (USPN 5,485,578) (as applied to claim 28) shows substantial features of the claimed invention, it fails to disclose means wherein at least one of the update blocks includes timing data indicating a date and time at which the updated software must be used.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sweazey (USPN 5,485,578), as evidenced by Collins, III, et al. (USPN 5,845,090).

In an analogous art, Collins, III, et al. (USPN 5,845,090) discloses a system for the distribution of updated software wherein at least one of the update blocks includes timing data indicating a date and time at which the updated software must be used (column 2, lines 24-42). Note that the distribution block would have this information.

Given the teaching of Collins, III, et al. (USPN 5,845,090), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sweazey (USPN 5,485,578) by employing the use of a specific time for software update. This benefits the system by allowing each node to be updated at the same time even if distribution is time intensive.

Allowable Subject Matter

39. Claims 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

40. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parton whose telephone number is (703)306-0543. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703)305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-9242 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Kevin Parton Examiner Art Unit 2153

ksp June 5, 2003

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